

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
19 May 2005 (19.05.2005)

PCT

(10) International Publication Number
WO 2005/045701 A1

(51) International Patent Classification⁷: G06F 17/30, G06K 19/07, 19/067, G07C 9/00, G06K 7/10, 17/00

(21) International Application Number:
PCT/IT2003/000727

(22) International Filing Date:
10 November 2003 (10.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicants and

(72) Inventors: ABATE, Valerio [IT/IT]; Via Genova, 15, I-21047 Saronno (IT). CONTI, Alberto [IT/IT]; Via Nirone, 10, I-20100 Milano (IT). BIANCHI, Michela [IT/IT]; Via Nirone, 10, I-20100 Milano (IT).

(74) Agent: GALLO, Luca; Jacobacci & Partners S.p.A., Via Berchet, 9, I-35131 Padova (IT).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

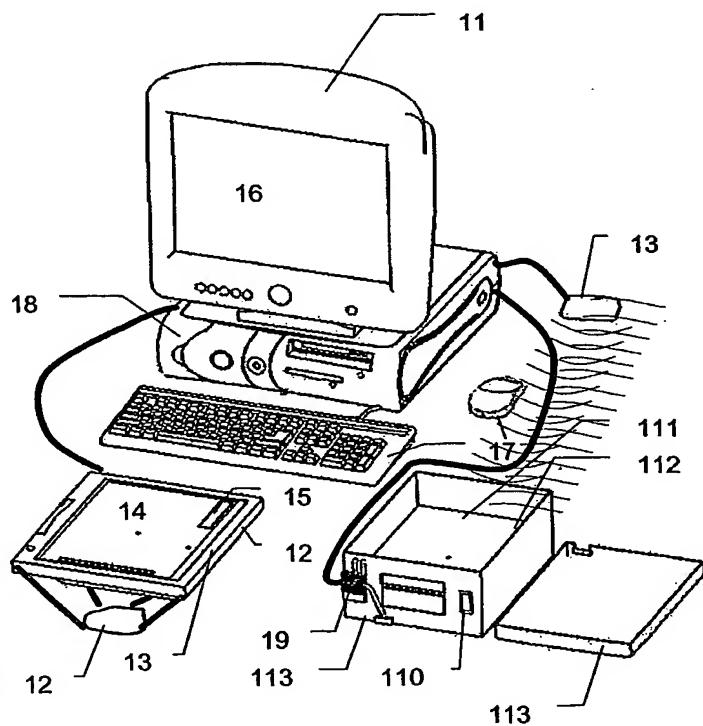
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

[Continued on next page]

(54) Title: APPARATUS AND PROCESS FOR DISTRIBUTED AUTONOMOUS MANAGING OF DOCUMENTS AND ELECTRONIC MEANS



the box and programmed once the filing procedure is successful. In an other preferred embodiment of the present invention the file box has memory module including a wireless communication device such as a blue-tooth able to internally check the presence of all memorized documents.

(57) Abstract: According to the preferred embodiments of the present invention, an apparatus and method for distributed storing and retrieving of paper documents and their electronic means is disclosed. In this context, storing of documents refers to the efficient management of storage and document retrieval based not only on image but also on document contents means such as words, concepts, numbers etc. The preferred embodiments of the present invention provide for easy and effective indexing, storing, retrieving, searching and managing of paper-based documents and their contents. The proposed apparatus and method implement a desktop solution for filing which can be made available to each worker. Uniquely, the digital means filing system of the present invention allows user to index and label documents whenever desired prior of storing original in a file box which includes a memory device able to contain documents means such as image and contents in electronic format. Labeling of documents and file box by using either a dedicated desktop radio frequency identifier tag or printed labels. Operation of storing of documents in file box by using either a dedicated desktop radio frequency identifier tag or printed label to check and list contents. The most preferred embodiments of the present invention utilizes flash memory type unit and individual radio frequency identifier tags that are attached to the document and to

WO 2005/045701 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.